FINDINGS AND RECOMMENDATIONS REGARDING THE PROPOSED ISSUANCE OF AN ENDANGERED SPECIES ACT SECTION 10(a)(1)(B) INCIDENTAL TAKE PERMIT IN ASSOCIATION WITH THE BROUGHTON LAND COMPANY NATIVE FISH HABITAT CONSERVATION PLAN COLUMBIA COUNTY, WASHINGTON

I. DESCRIPTION OF THE PROPOSED ACTION

A. Introduction

The U.S. Fish and Wildlife Service (Service) proposes to issue an Incidental Take Permit (ITP) with a duration of 25-years to the Broughton Land Company (BLC). Section 10(a)(1)(B) of the Endangered Species Act (ESA) allows the Service to issue an ITP to a non-Federal entity for incidental take of federally listed species, provided certain criteria are met. "Incidental take" is defined as take that is, "incidental to, and not the purpose of, the carrying out of an otherwise lawful activity." Incidental Take Permit issuance criteria are prescribed in Title 50 Code of Federal Regulations (CFR) 17.22(b), 50 CFR 17.32(b)(2), and section 10(a)(1)(B) of the ESA. The BLC is requesting an ITP for incidental take caused by their forest management activities, farming operations, and grazing and livestock management.

The BLC has applied to the Service and the National Marine Fisheries Service (NMFS) for ITPs, that authorize incidental take of the following fish species listed as threatened: the bull trout (*Salvelinus confluentus*), Snake River spring/summer Chinook salmon and Snake River fall Chinook salmon (both *Oncorhynchus tshawytscha*), and middle Columbia River steelhead trout and Snake River steelhead trout (both *Oncorhynchus mykiss*). The Service has jurisdiction over the bull trout, and NMFS has jurisdiction over the salmon and steelhead species listed above. If the BLC's application meets the ITP issuance criteria under section 10(a)(2)(B) of the ESA, the Service and NMFS will issue separate ITPs for the above listed species under their respective jurisdictions.

In accordance with the requirements of the ESA, the BLC has submitted a conservation plan [entitled "Broughton Land Company Environmental Assessment and Native Fish Habitat Conservation Plan" (Plan)] to the Service as part of their application for an ITP. The Plan is comprised of the Habitat Conservation Plan (HCP) developed by the BLC and their consultant, and an Environmental Assessment (EA) jointly completed by the Service and NMFS. The Service's analysis and findings as to whether the HCP meets the ITP issuance criteria described in section 10(a)(2)(B) of the ESA are presented below. NMFS is preparing its analysis and findings under separate documentation.

In a Biological Opinion (BiOp) dated August 13, 2008 (reference # 1-9-08-F-0108), the Service analyzed the effects of issuing the ITP. The BiOp concluded that activities conducted in compliance with the HCP are not likely to jeopardize the continued existence of the bull trout, and are not likely to destroy or adversely modify designated critical habitat for the bull trout. The incidental take authorization would be effective upon issuance of the permit.

B. Description of the BLC Ownership

The BLC has two principal dryland pasture areas: the Pentecost Pasture located near the Snake River, and lands near and bordering Pataha Creek and the Tucannon River in Columbia County, Washington. These dryland areas are internally drained only by ephemeral gulches bordered by grasses, forbs, and, in some areas, brush species. Narrow bottomland irrigated alfalfa and grass hay lands also occur along the Tucannon River. Pataha Creek is partially bordered by brush and dense grass/forbs. Cattle have no access to intermittent or perennial streams in the Pentecost pasture, no access to Pataha Creek, and only very limited access to parts of one of the four blocks of BLC land bordering the Tucannon River (see subsection 3.4.3.3 of the Plan for further discussion of Tucannon grazing management).

The BLC's forestlands are located in the Robinson Fork area of the Touchet River. These lands are managed for an annual harvest of timber, primarily with partial cut silvicultural systems, although this has been modified due to a large fire in 2006. The BLC's road system for these lands is nearly complete, with the exception of areas at the upper end of BLC's lands near and bordering Umatilla National Forest lands. Areas to the east of the Robinson Fork near and bordering Confederated Tribes of the Umatilla Indian Reservation lands would be accessed via existing ridge top roads or with helicopters, with little or no new road construction envisioned. The BLC also typically grazes cattle in these forestlands for part of each year, generally beginning early in June and ending in November.

Agricultural lands are found in the moderate precipitation areas between the dry pastures and forestlands. The BLC has implemented a cropping plan that minimizes soil erosion, as described in subsection 3.4.1.1 of the Plan. The BLC's improved conservation practices contrast with those that continue to be used in many areas of Columbia County where erosion and sediment delivery to streams is still a problem.

The BLC farms suitable uplands raising dry-land wheat, peas, and barley. Irrigated bottomlands support grass or alfalfa. Small ephemeral draws in upland-farmed areas are maintained as grassy waterways to prevent channel and gully erosion. Larger channels, as they become intermittent and/or perennial, often support brush and tree stands, and are buffered from the surrounding fields by such vegetation. Riparian vegetation bordering several streams on BLC land is recovering from degraded conditions caused by past land management activities, many of which pre-date BLC ownership of these lands. Current vegetative condition and management practices are described in detail for each stream on BLC land in subsections 6.3.1 through 6.3.12 of the Plan.

For a spatial display of BLC parcels, see figure 13 in the Plan. Parcels are also summarized in Table 2 of the BiOp.

C. Covered Activities

The following covered activities are addressed in the HCP: forest management, farming, and grazing and livestock management. Forest management includes all aspects of mechanized timber harvesting, log transportation, road construction, maintenance and decommissioning, site

preparation and slash abatement, tree planting, fertilization, silvicultural thinning, wildfire suppression, and stream restoration, as described below. During the term of the ITP, the BLC may apply insecticides, fungicides and herbicides (referred to jointly as "pesticides") in areas covered by the HCP as needed to control vegetation and organisms that may suppress or inhibit tree growth. All pesticides would be applied in accordance with applicable regulations of the Environmental Protection Agency (EPA) and applicable laws of the state of Washington. The application of pesticides is not a covered activity under the HCP.

Specific forest management activities to be covered under the HCP are as follows (more detail is provided in the Plan):

1. Timber harvest, including felling, bucking, and yarding of timber with ground, tower, or aerial logging systems;
2. Transportation of logs from BLC lands via roads;
3. Helicopter operations, including log transport, landing construction and the development of fueling points;
4. Road construction, maintenance, and decommissioning, including clearing of rights of way for new roads, excavation of road cuts and fills, installation of culverts, surfacing of roads, road surface and culvert maintenance, use and maintenance of existing fords (with limitations), brush control along road corridors, seeding, maintenance and installation of erosion control measures, and temporary or permanent road closure;
5. Tree planting;
6. Fertilization of certain timber stands up to two times between the stand ages of 15 and 40 years old by aerial application, in compliance with the Washington State Forest Practices Rules WAC 222-38-030 (2001) that prohibit application of fertilizers to wetlands and streams;
7. Silvicultural thinning of timber stands, including commercial thinning and pre-commercial thinning of stands younger than 30 years old;
8. Stream and riparian area enhancement projects designed to improve riparian and stream channel habitat in cooperation with local conservation agencies and organizations; and
9. Site preparation and slash abatement, including preparation of harvested sites for planting by bulldozer blading or other means, and burning of slash in accordance with applicable Washington State law.

BLC's farming activities occur on 15,017 acres of farm land. This area includes 2,100 acres of farm and grazing lands in Conservation Reserve Program (CRP) status. BLC activities on CRP lands are also included as covered activities under the HCP and will be subject to all of its requirements, with future rental agreements specifying practices for these lands that are consistent with the terms of the HCP. Lands that are rented to other operators will be monitored for compliance in the same way as all other lands covered under the HCP. Most of the remaining 10,954 acres of BLC farmland is dryland (not irrigated) farmed, with winter wheat, spring wheat, barley, peas, lentils, and other grains as the principle crops.

The farm practices to be covered under the HCP are:

1. Normal plowing, tillage and cultivation;

2. Planting, fertilizing, and land application of manure;
3. Harvesting of crops and mowing;
4. Burning of weeds, grass, and stubble;
5. Fence construction and maintenance;
6. Road construction and maintenance;
7. Occasional or emergency use of existing fords (Patit Creek), generally with rubber-tired farm tractors;
8. Construction and maintenance of pumping and water storage facilities;
9. Normal irrigation practices as described for lands adjoining Patit Creek and the Tucannon River;
10. Ditch construction, cleaning, and maintenance; and
11. Fallow treatment, which means establishment of a cover crop on land that is not farmed for at least one growing season.

The BLC's grazing and livestock management operations are also included as part of the HCP. The BLC manages 18,273 acres of land for beef cattle production. BLC's current herd typically includes 800 cow/calf pairs, well below the land's carrying capacity. Historically, a portion of BLC's herd was moved seasonally from the Pentecost Pasture and other areas to the forestlands of the Robinson Fork area. However, because of the impacts of the 2006 fire in Robinson Fork and the need to re-establish trees, BLC has enrolled the riparian areas in the Conservation Reserve Enhancement Program (CREP) and will fence them to exclude all grazing for the term of the CREP contracts. Upland areas of Robinson Fork will be grazed once new trees in the burned area become established. Specific pasture areas and their management are covered in more detail in the HCP. The range and livestock management activities covered in the HCP include:

1. All normal grazing, pasture rotation, and herd dispersion practices;
2. Fence, gate, and cattle guard construction and repair;
3. Winter feeding operations and year-round placement of salt or other nutrients;
4. Location, construction and repair of temporary or permanent watering devices;
5. Construction and repair of temporary or permanent corrals and loading facilities;
6. Construction, repair, and operation of temporary veterinary and medical treatment facilities;
7. Location of such temporary housing as tents, trailers or small buildings designed for limited use by people who are assisting with livestock herding, calving or shipping;
8. Collection and removal of animal wastes, including land application of manure under appropriate state regulations; and
9. Disposal of dead animals.

D. Conservation of Species/Habitats

Table 1 presents the listed fish species to be covered by the HCP.

Table 1. Native fish species covered by the HCP.

Species	Federal Status*	State Status
Oncorhynchus tshawytscha		
Snake River spring/summer Chinook salmon	T	SC
Snake River fall Chinook salmon	T	SC
Oncorhynchus mykiss		
Snake River Steelhead trout	T	SC
Middle Columbia River Steelhead trout	T	SC
Salvelinus confluentus		
Bull trout	T	SC

T = Threatened SC = State Candidate.

* The Service has ESA jurisdiction of the bull trout, and NMFS has jurisdiction of the salmon and steelhead species.

The HCP's mitigation measures address known threats to the fish species and the aquatic habitats on which they depend. These threats include increased water temperature and sediment delivery, excessive nutrients and resultant undesirable aquatic plant growth, instability of stream banks, potential for mass failure of upland slopes, and pump intakes that are not properly screened and may injure fish.

The HCP is designed to address these threats in a manner that minimizes and mitigates the impacts of covered activities on the covered aquatic species that may use streams flowing through BLC's lands. Specific conservation measures by individual parcel and by land use are described in Table 9 of the HCP. Generally, the HCP includes the following minimization and mitigation measures for forested parcels: compliance with Washington State Forest Practices Rules or better practices for the term of the ITP; implementation of CREP buffers on the Robinson Fork via fencing and retention of these buffers via fencing or other cattle management practices after the CREP contract period; improvements to ongoing grazing management; continuation of sustainable forestry practices; and continuation of certain road maintenance and abandonment practices.

Minimization and mitigation measures on farming and grazing lands included in the HCP involve: implementation of a trust water right to increase flow on the Tucannon River; ensuring that appropriate fish screens are installed; exclusion of livestock from riparian areas; implementation and maintenance of riparian buffers and CREP-related buffers; monitoring of plantings or natural revegetation in buffer areas; continuation of farming tillage practices that minimize erosion and sediment delivery to streams and rivers; and implementation of road maintenance practices that minimize erosion and sediment delivery to streams and rivers.

II. ANALYSIS OF EFFECTS

The BLC's ownership of over 38,000 acres (59 square miles) comprises less than 7 percent of the 900-square mile area of Columbia County, Washington. The BLC is one of over 300 owners of farm, grazing, and forest lands in the county. The BLC's ownership is divided into 11 parcels of approximately 1,000 to 7,000 acres each.

The effects of the proposed action on the bull trout are fully analyzed in the Plan and the BiOp, which are herein incorporated by reference. A summary of the analysis is provided below.

After reviewing the current status of bull trout, the environmental baseline for the affected area, the effects of the Service's proposed action and cumulative effects, the Service has determined that issuance of an ITP to the BLC is not likely to jeopardize the continued existence of the bull trout. Implementation of the HCP and covered activities is not expected to appreciably reduce the likelihood of survival and recovery of the bull trout in the wild for the following reasons: 1) there are no direct impacts to spawning or rearing habitats; 2) aquatic functions will improve as riparian areas improve; 3) riparian buffers and/or CREP will be maintained for the life of the HCP; and, 4) the BLC is implementing measures as recommended for private landowners in the bull trout draft recovery plan (Service 2004).

The Service further determined that issuance of this ITP is not likely to destroy or adversely modify designated critical habitat for the bull trout for the following reasons: 1) the proposed action will have no effect on habitats within spawning or rearing areas for the bull trout; 2) the landowner is doing the actions expected of private landowners as contemplated in the bull trout draft recovery plan (Service 2004); and 3) aquatic habitats under the control of the BLC will improve with implementation of the HCP and associated farming and forestry methods and practices, resulting in an improvement of bull trout habitat in some stretches of rivers and streams which support bull trout or improvement of flow into designated critical habitat reaches.

III. PUBLIC COMMENT

A draft of the Plan was made available for public review during a 30-day public comment period between March 5, 2008 and April 4, 2008, inclusive via *Federal Register* Notice. The draft Plan was also available during this time at the Dayton Public Library in Dayton, Washington, and on the Service's website for the Upper Columbia Fish and Wildlife Office. The Service also announced the availability of the draft Plan in a news release distributed to more than 30 entities, including elected officials, media outlets, and various agencies; and in e-mails distributed to more than 60 technical and private entities involved in watershed planning issues in southeast Washington and northeast Oregon. The Service received one comment via e-mail from a private citizen and one comment e-mail from a Washington Department of Fish and Wildlife (WDFW) biologist. These two comments did not result in changes to the Plan, but are addressed below.

Comment 1: The HCP, and in particular, the timber harvest component of it, would permit the landowner to destroy land and kill listed species.

Response to Comment 1: We understand and appreciate the commenter's concern for listed species. Since the ESA was enacted in 1973, the Federal government and non-Federal landowners have recognized that a property owner's otherwise lawful activities could result in the unintentional take of listed species that doesn't jeopardize the continued existence of the affected species. As a result, Congress amended section 10 of the ESA in 1982 to address this issue by authorizing the issuance of permits for "incidental take" through the development and implementation of Habitat Conservation Plans, provided certain criteria were met. If an HCP

meets the permit issuance criteria, the Service can provide an ITP authorizing incidental take of listed species. The purpose of the habitat conservation planning process associated with the permit is to ensure there is adequate minimization and mitigation of the impacts caused by the incidental take on the affected listed species. The purpose of the ITP is to authorize the incidental take of a listed species, not to authorize the activities that result in take. HCPs are a means of providing commitments to the conservation of listed species and assurances to landowners. The Service believes that the BLC HCP meets the permit issuance criteria of the ESA, as described elsewhere in this document.

Comment 2: The commenter questioned whether the width of proposed riparian buffers under the HCP is adequate, and recommended buffers of at least 100 feet on either side of streams in all locations covered by the BLC HCP in order to maintain properly functioning riparian habitats. The commenter explained that buffers should serve multiple functions, including: sediment filtration, large woody debris recruitment, pollutant filtration, erosion control, shading for temperature control, wildlife habitat, density and diversity of benthic invertebrates and macroinvertebrates. The commenter further stated that buffers of at least 100 feet are the minimum recommended for salmonid species, and referenced the WDFW Priority Habitat and Species Riparian Habitat Management Recommendations, and the State of Washington Wild Salmonid Policy. The commenter also listed examples from the HCP that did not meet the 100-foot riparian buffer recommendation: the buffer is 75 feet in places along the Tucannon; and approximately 40 feet along Patit Creek (Table 7 on page 64 of the Plan states the buffer from the farm field to the top of the escarpment is only 10 feet in one place with riparian vegetation below the escarpment to the stream edge).

Response to Comment 2: The Service agrees that 100-foot-wide riparian buffers on either side of streams would be preferred. However, the purpose of the habitat conservation planning process is to ensure that the effects of the authorized incidental take has been adequately minimized and mitigated. As the HCP was developed, the Service and other entities, such as the WDFW, provided technical assistance on the best available information on covered species biology and habitats. The HCP is the applicant's document, however, and the applicant is not obligated to incorporate all of the Service's recommendations, often because those measures may significantly impact the covered activities (in this case farming, ranching, and forestry). If the HCP as a whole is sufficient to meet the issuance criteria (addressed later in this document), then the Service may issue a permit despite certain aspects of the HCP being less than preferred.

The Service recognizes that the current buffer averages approximately 39 feet along Patit Creek. With implementation of the HCP the buffer will improve, but will still average about 50 feet on either side, with some locations as narrow as 10 feet on the top escarpment. As a result, the Service asked the applicant to further explain how these buffers will still allow restoration of aquatic functions in that stretch of Patit Creek. This is addressed on pages 57-64 of the final Plan, and is summarized below.

Patit Creek in the area with the narrowest buffer width has an incised channel, has historically down-cut deeply into the valley floor, and is sinuous within a newly established inner terrace floodplain. This inner terrace is generally bordered by an escarpment (generally 3 to 10 feet in height) formed when the stream down-cut many years ago. In several areas, the escarpment

remains unstable and barren, while in others it is richly vegetated with brush species. Currently, the stream has re-established a narrow (3.4-foot average width) active channel within an inner riparian terrace (27-foot average total width) that is generally heavily vegetated with reed canary grass, or brush with grass understory. As displayed in Table 7 and figure 11 of the Plan, the current riparian area bordering Patit Block #4, and including both the incised terrace and the upper escarpment averages 39 feet in width to the north, and 52 feet in width to the south. To stabilize the escarpments and reestablish riparian brush and tree species on exposed surfaces and on the upper terrace surfaces, BLC proposes to establish a no-farm buffer between its fields and these escarpments that would be a minimum of 10 feet wide, and to provide a total riparian buffer width that would average over 50 feet wide on each side of the stream.

The HCP further explains that ponderosa pine and/or other suitable tree species would be planted within suitable areas of the buffer. This width of riparian area, once densely vegetated, would provide for full stream shade, woody debris recruitment, bank stability, and erosion control. Slopes farmed adjacent to these riparian areas are flat to very nearly flat, and coupled with erosion control provided by minimum till conservation practices, provide good sediment and nutrient filtering. Full riparian function for all of these attributes is the goal and is expected to be rapidly achieved as riparian areas are further invaded by brush and tree species.

The watershed area associated with Patit Block 4 is 12 square miles. Discharge for the 100-year flood calculated using USGS regional flood frequency procedures is 1,320 cubic feet per second (cfs). Hydraulic capacity of the channel in this reach is 1,400 cfs. Using this information, the BLC's consultant determined that the aquatic functions of the floodplain would usually be entirely provided within the incised channel. The area on top of the escarpment provides some functions, such as stability and shading, but would not provide habitat for water-loving riparian plants.

In addition to implementing riparian buffers of varying widths, the HCP includes additional measures, which minimize impacts to riparian habitats. At Pataha Creek, cattle have been completely removed from accessing the creek, and an upslope water trough has been provided. Stream fords may be used, but only in emergencies. At Robinson Fork, cattle will be fenced out of the riparian zone for at least the duration of the CREP contract (about 10 years), likely resulting in large improvements of habitat in that important upper watershed.

As a whole, the Service believes that BLC HCP provides for adequate riparian buffer widths, especially when coupled with other conservation measures in the HCP. One of the most important components of the HCP is the protection of more than half of BLC's Tucannon River water right in trust in-stream for the life of the HCP.

IV. INCIDENTAL TAKE PERMIT CRITERIA - ANALYSIS AND FINDINGS

Section 10(a)(2)(A) of the ESA specifically mandates that an ITP may be issued by the Secretary authorizing any taking referred to in paragraph (1)(B) when the Applicant submits to the Secretary a conservation plan that specifies the following: (i) the impact that will likely result from such taking; (ii) what steps the Applicant will take to minimize and mitigate such impacts, and the funding that will be available to implement such steps; (iii) what alternative actions to

such taking the Applicant considered and the reasons why such alternatives are not being utilized; and (iv) such other measures as the Secretary may require as being necessary or appropriate for the purposes of the HCP.

Section 10(a)(2)(B) of the ESA mandates that the Secretary shall issue a permit if "...after opportunity for public comment, with respect to a permit application and the related conservation plan that (I) the taking will be incidental; (ii) the Applicant will, to the maximum extent practicable, minimize and mitigate the impacts of such taking; (iii) the Applicant will assure that adequate funding for the plan will be provided; (iv) the taking will not appreciably reduce the likelihood of the survival and recovery of the species in the wild; and (v) the measures, if any, required under subparagraph (A)(iv) will be met; and [s]he has received such other assurances as [s]he may require that the plan will be implemented..."

With regard to this specific project, permit action, and section 10(a)(2)(B) requirements, the Service makes the following findings:

1. The taking will be incidental.

The activities for which incidental take coverage are sought under the permits are for forest management, farming, and grazing and livestock management. Any take of bull trout resulting from the effects of these BLC operations will be incidental to, and not the purpose of, these lawful activities.

2. The Permittee will, to the maximum extent practicable, minimize and mitigate the impacts of taking listed species.

The Service finds that BLC will minimize and mitigate the impacts of take of bull trout to the maximum extent practicable. BLC has developed the HCP pursuant to the incidental take permit requirements codified at 50 CFR 17.22(b)(1) and 50 CFR 17.32(b)(1), which require measures to minimize and mitigate the effects of issuing the permit. The measures to minimize and mitigate to the maximum extent practicable are fully described and analyzed in the Plan and BiOp, which are herein incorporated by reference. A summary of the analysis is provided below. Under the provisions of the HCP, the impacts of take will be minimized, mitigated, and monitored in accordance with the requirements of permit #TE-165744-0 through the following measures:

(a) Chapter 3.4 of the HCP identifies measures to minimize and mitigate, to the maximum extent practicable, the impacts of incidental take of the bull trout caused by BLC operations.

(b) Sections 3.4.1-3.4.3 of the HCP describe active management and enhancement actions that will be implemented by the BLC for the 25-year term of the permit for the benefit of the bull trout.

(c) Chapter 3.6 of the HCP decribes a monitoring and reporting plan to gauge the anticipated biological success and effectiveness of the HCP and to provide information for the Adaptive Management Plan, which is designed to improve the

biological success of the HCP as new information becomes available or conditions change.

(d) The HCP describes a funding mechanism, which contains assurances that the HCP will be implemented.

The minimization and mitigation measures proposed by the BLC were developed based on the results of nine years of analysis and negotiation between the BLC, the Service, and NMFS. From 1999 to 2008, the Service provided technical and policy assistance to the BLC and its consultants in development of the HCP. Additional review and coordination occurred with the WDFW, as well as input through the public process. These processes allowed the Service to consider baseline environmental conditions, the types of conservation necessary to avoid and/or address impacts within the planning area, and the ability of the BLC to implement prescriptions and procedures that are practicable in the context of their forest management, farming, grazing and livestock management operations. The monitoring plan will monitor the effectiveness of the conservation program over the life of the permit and contains provisions to adjust management activities and conservation measures to improve the effectiveness of the conservation program under the HCP.

To make the finding that conservation measures included in the HCP minimize and mitigate the impacts of take to the maximum extent practicable, the Service must first evaluate whether the conservation measures are appropriately related to the type and level of incidental take anticipated under the HCP. In effect, minimization and mitigation measures need to address the biological needs of the covered species in a manner that is commensurate with the impacts to the species allowed under the HCP. The Service believes the level of minimization and mitigation provided for in the HCP compensates for impacts of bull trout take that are likely to occur as a result of the covered activities under the HCP.

Although BLC lands do not support known bull trout spawning areas, indirect effects from BLC covered activities may impact bull trout seasonal rearing, overwintering, foraging, and migration in the middle and lower portions of the following watersheds where BLC lands occur: 1) the Touchet River watershed, including headwater streams and tributaries to the mouth, and 2) the Tucannon River watershed, including the mainstem, and tributaries down to the mouth. There are parcels of BLC land that drain directly into the Snake River, but in those areas the drainages are intermittent vegetated draws, and HCP covered activities are likely to have no or minimal impacts to bull trout in the Snake River that are not likely to result in incidental take.

Migratory bull trout may be injured or killed due to water quality effects caused by BLC farming or livestock grazing actions that contribute to increased sediment or nutrient delivery into tributary streams or occupied bull trout streams, and/or contribute to higher water temperatures from lack of riparian shading. However, these impacts are expected to be a rare event since Washington State Forest Practices Rules prescriptions and HCP conservation measures, including riparian buffers, are focused on reducing sediment/nutrient effects and maintaining or increasing riparian shading. Livestock trampling at fords on the Tucannon River or Robinson Fork may injure or kill migratory bull trout, although this is likely to be a rare event because those fords are now fenced off, and would only be used in emergencies. Motor vehicle use of

Robinson Fork fords may injure or kill migratory bull trout, although this is likely to be a rare event based on known bull trout distribution, and because the fords will only be used for administrative use, not for log-haul. Continued use of irrigation water in the Tucannon River parcels may result in injury, or passage impairment of migratory bull trout. Under the HCP, the BLC is committing to maintain a portion of its water right in the river as a "trust water right", however, water use would continue in the low-flow season for the river when bull trout could be present, although the occurrence of higher water temperatures during the irrigation season make the presence of bull trout less likely. Resident bull trout may be harmed or injured from sediment and water quality impacts in locations where buffers are less than 75 feet wide, such as in parts of the Tucannon River portion of the HCP area. In general, however, due to the location of the BLC parcels and the known distribution of bull trout, the anticipated effects of covered activities on the bull trout are not expected to be significant or lead to reductions in the affected bull trout population.

The National Environmental Policy Act of 1969, as amended (NEPA), requires that a range of reasonable alternatives to the proposed action be considered. Three alternatives were identified by the Service as comprising a range of reasonable alternatives, including the no-action alternative, the farm and rangeland alternative, and the proposed action alternative. Two other alternatives were also considered but not analyzed in detail, including one that did not result in incidental take of a covered species. The proposed action alternative was selected as the environmentally preferred alternative because it resulted in the greatest net benefit to bull trout due to the set of conservation measures to be implemented, which includes implementing conservation measures that would reduce or eliminate livestock access to riparian and stream areas, decrease sediments, and ensure ongoing conservation measures for the life of the HCP. Moreover, this alternative gives the BLC regulatory certainty for planning and management of agricultural and forest harvest activities, and establishes a program that requires the BLC to be responsive to addressing site-specific problems related to the bull trout during the term of the ITP. No other alternative considered would result in this level of financial commitment or species conservation by the applicant. A summary of the components of each alternative is provided in Table 14 in the Plan, and briefly described below.

- Under the No-Action Alternative, the HCP would not be implemented, and the Service would not issue an ITP for covered species. BLC's forest management practices would be subject to Washington State Forest Practices Rules, which would include ITP coverage for steelhead and bull trout under the State Forest Practice HCP only for forestry activities (see subsection 2.5 of the HCP under "Relationship to Other Plans, Policies, and Laws"). The Washington State Forest Practices Rules do provide some protections for riparian zones, and limit road construction and timber harvest. The BLC would continue to conduct its operations without ITP coverage for farming and grazing activities. This alternative would not provide the BLC an ITP for farming and grazing activities, and , therefore, would not give the BLC the regulatory certainty it is seeking. However, the BLC's current land management practices and compliance with existing regulations (such as Washington State Forest Practices Rules) would likely result in either slow improvements to or maintenance of current riparian and stream conditions.

- The Farm and Rangeland HCP Alternative includes only BLC's non-forested farming and grazing lands and their agricultural operations. All of the management practices pertaining to grazing or farming presented under the proposed action alternative would apply to the non-forested lands. The BLC would implement conservation measures that would reduce or eliminate livestock access to riparian and stream areas on agricultural and grazing land, and that minimize sediment delivery into streams. The Service would issue an ITP to the BLC for the bull trout in those covered areas. This alternative would give the BLC regulatory certainty for agriculture and grazing activities outside of its forest lands. The BLC could plan and implement its agricultural activities with regulatory certainty. Management on BLC-forested lands would be the same as management under the No-Action Alternative.

- Two other alternatives were considered but rejected in the development of the HCP: 1) a wide-buffer HCP that involves the establishment of 100-foot and 200-foot "no touch" riparian buffers along intermittent and perennial streams, respectively; and 2) a more generally stated no-impact HCP that would restrict farming and forestry activities through set-backs and activity reductions to the point that there would be no impact on listed fish species. Both alternatives would not have met the purpose and need because they would prevent the BLC from managing and using significant tracts of its land.

The BLC is already implementing many conservation measures in the HCP covered area, and based on current information, the preferred action alternative is not expected to have a large impact on any of the analyzed resources. Under the preferred alternative, the BLC would meet Washington State Forest Practices Rules, or better. Under the preferred alternative, CRP lands are included as activities covered by this HCP and are subject to all of its requirements, with future rental agreements specifying practices for these lands that are consistent with the terms of the HCP. Under the preferred alternative, the BLC will maintain riparian buffers, specifically CREP buffers on forest lands, for the life of the CREP contract, then monitor and manage grazing to ensure maintenance of adequate riparian vegetation for fish needs. Other CREP buffers on agriculture land parcels will also be maintained for the life of the HCP. Under the preferred alternative, the BLC would undertake all general, site-specific, and activity-specific measures described in Table 6 of the Plan to alleviate stressors to the bull trout on their farm, grazing, and forest lands, although the expected adverse and beneficial impacts would be small relative to the affected environment.

The BLC will provide annual monitoring reports to the Service, including monitoring results, implementation progress, and documentation of any changed circumstances and approaches implemented to address changed circumstances, and any other information necessary or helpful to document progress on implementation of the HCP and effects to covered species. In accordance with the HCP, the BLC and the relevant Federal and state agencies shall meet approximately 1 year from the date of permit issuance, then at least once every 2 years for the life of the permit to review progress in implementing the HCP, to discuss monitoring results and the need for any adaptive management actions needed as part of the obligations of the parties to the HCP.

In consideration of all the above factors, the Service finds that: (a) the proposed mitigation under the HCP is commensurate with anticipated impacts of covered activities on the bull trout; (b) the HCP is consistent with the long-term survival and recovery of the bull trout; and (c) the HCP minimizes and mitigates the effects of take of the bull trout caused by covered activities to the maximum extent practicable. These findings are based on the fact that impacts of covered activities are likely to be low or minimal, and the benefits to the bull trout are likely to be demonstrable, especially compared to existing conditions or conditions expected to occur absent implementation of the HCP under the preferred alternative.

3. The Permittee will ensure that adequate funding for the conservation plan and procedures to deal with unforeseen circumstances will be provided.

The Service finds that BLC has ensured adequate funding for the HCP and that it provides procedures to address unforeseen circumstances. The BLC will fund implementation of the HCP through direct expenditures, and these operational costs are included in the BLC's annual budget for the management of the property. At the outset of the development of this HCP, the BLC estimated that direct expenditures from all sources to implement the HCP would total approximately $327,000. Annual maintenance costs of mitigation measures are estimated to be approximately $25,500. Most of the structural conservation measures, such as fencing, pump and irrigation screening, dam removal, and road realignment/abandonment have already been implemented (see Table 9 of the Plan). Major components of the HCP and the originally estimated costs or the actual costs for projects already completed are summarized in Table 10 of the Plan.

To assure that adequate funds are available for annual maintenance, the BLC will dedicate necessary funds from the annual CREP and CRP payments made to the company. These payments represent a commitment under various U.S. Department of Agriculture (USDA) authorities for annual payments based upon the number of acres that individual landowners have enrolled in either CREP or CRP. The duration of some of the CREP and CRP contracts that the BLC now holds exceeds the proposed term of this HCP. The Service believes that the annual CREP and CRP payments made to the BLC provide sufficient assurance that the applicant will have adequate funding to implement the conservation measures identified in the HCP. Any additional funds to complete such work will come from a combination of existing conservation programs and from funds included as part of the BLC's annual operating budgets. If low farm prices or limitations to available cost-share programs (e.g., CRP and CREP) necessitate the postponement of some expenditures from the year originally scheduled for them, there are two possible courses of actions: (1) negotiate changes in the HCP or (2) find alternative sources of funds. The BLC is prepared to explore these possibilities, if the need arises. Under the terms of the HCP, each year, the BLC will review upcoming projects and their associated costs with the Service.

The HCP includes procedures for determining the occurrence of both changed circumstances and unforeseen circumstances. Changed circumstances are those relatively predictable events that could occur on the landscapes covered in the HCP. For this HCP, changed circumstances include, but are not limited to:

- Natural catastrophic events (e.g., fire, drought, severe wind or water erosion, floods, and landslides) of a magnitude expected to occur during the term of the permit;
- Impacts from exotic species, habitat or species-specific disease, or any other circumstance that significantly threatens covered species or their habitats and that affects populations of covered species throughout a substantial portion of their distribution in the HCP area;
- Vandalism or other intentional, destructive, illegal human activities;
- Initiation of grazing, farming or logging in a portion of BLC's ownership where those activities did not commonly take place when the HCP was being prepared;
- Listing of a new species not covered by this HCP;
- Land purchases, sales or exchanges; and new scientific knowledge, which, if applied, could further the purposes of this HCP.

The BLC, in cooperation with the Service, will utilize monitoring and "adaptive management" to gauge the effectiveness of existing conservation measures implemented in accordance with the HCP and to propose additional or alternative measures as the need arises to deal with changed circumstances (see Table 12 of the Plan).

Unforeseen circumstances are those events that are completely unpredictable (e.g., earthquake, volcanic eruption, or the outbreak of a disease completely lethal to one or more wildlife species) or an event that exceeds historic variability, which results in a substantial and adverse change to the status of a covered species. Events expected to occur less frequently than once during an average 30-year period would be unforeseen circumstances. Pursuant to the Service's "No Surprises" regulations [50 CFR 17.22(b)(5) and 17.32(b)(5)], the HCP includes procedures to address unforeseen circumstances. In the event of unforeseen circumstances affecting the covered species, the BLC would not be required to provide additional land, water, or financial compensation or additional restrictions on the land, water, or other natural resources beyond the level otherwise agreed upon for the species covered by the HCP without their consent; provided that proper implementation of the HCP has occurred.

4. The taking will not appreciably reduce the likelihood of the survival and recovery of the species in the wild.

The ESA's legislative history established the intent of Congress that this issuance criterion is identical to the finding of "not likely to jeopardize" under section 7(a)(2) (see 50 CFR 402.02). As a result, the proposed approval of BLC's permit application has also been reviewed by the Service under section 7 of the ESA. The Biological Opinion on our proposed issuance of an ITP to the BLC based on the proposed HCP concluded that the that issuance of an ITP is not likely to jeopardize the continued existence of the threatened bull trout or result in the destruction or adverse modification of its critical habitat. The basis for the Service's finding is summarized below.

Based on our review of the current status of the bull trout, the environmental baseline for the action area, effects of the proposed action and cumulative effects, implementation of the HCP and issuance of the ITP is not likely to appreciably reduce the likelihood of survival and recovery of bull trout in the wild for the following reasons: 1) no direct impacts are likely to occur to

spawning or rearing habitats; 2) aquatic functions are likely to improve as riparian areas improve with implementation of the HCP; 3) riparian buffers and CREP will be maintained for the life of the HCP in most locations, with the one exception being the Robinson Fork CREP, where the BLC agrees to implement grazing management that will maintain riparian habitats; and 4) the BLC will/is implementing measures as recommended for private landowners in accordance with the draft bull trout recovery plan.

Implementation of the HCP and issuance of the ITP is not likely to destroy or adversely modify designated critical habitat for the bull trout for the following reasons: 1) the proposed action is not likely to effect habitats within spawning or rearing areas for the bull trout; 2) the landowner is/will implementing actions expected of private landowners as set forth in the draft bull trout recovery plan; and 3) aquatic habitats on BLC covered lands are likely to improve with implementation of the HCP and associated farming and forestry methods and practices, resulting in an improvement in bull trout habitat conditions along some stretches of rivers and streams that support bull trout or flow into designated critical habitat reaches.

5. Other measures, required by the Director of the Service as necessary or appropriate for purposes of the HCP, will be met.

The Service finds that all additional measures required by the Service as necessary or appropriate for the HCP are included in the HCP, and/or the permit terms and conditions.

6. The Service has received the necessary assurances that the HCP will be implemented.

The Service finds that the HCP provides the necessary assurances that the HCP will be carried out by the BLC because by accepting their permit, the BLC is bound to fully implement the provisions of the HCP, and the BLC has been implementing many portions of the HCP in a good faith effort for several years.

V. GENERAL CRITERIA AND DISQUALIFYING FACTORS - FINDINGS

The Service has no evidence that the permit application should be denied on the basis of the criteria and conditions set forth in 50 CFR §13.21 (b)-(c).

VI. RECOMMENDATION ON PERMIT ISSUANCE

Based on the foregoing findings with respect to the proposed action, I recommend approval of permit #TE-165744-0 to the BLC for incidental take of the bull trout in accordance with the HCP.

David H Wesley 9/18/08

Dave Wesley
Deputy Regional Director
U.S. Fish and Wildlife Service, Region 1

Date

References Cited

Broughton Land Company. 2008. Final Environmental Assessment and Native Fish Habitat Conservation Plan, April 23, 2008.

U.S. Fish and Wildlife Service. 2002. Chapter 24, Snake River Recovery Plan. 134 p. In: U.S. Fish and Wildlife Service. Bull Trout (*Salvelinus confluentus*) Recovery Plan. Draft. Portland, Oregon.

U.S. Fish and Wildlife Service. 2004. Unpublished revised draft. Chapter 10, Umatilla-Walla Walla Recovery Unit, Oregon and Washington. 160 p. May 10, 2004.

U.S. Fish and Wildlife Service. 2008. Biological Opinion for the Proposed Issuance of Section 10(a)(1)(B) Incidental Take Permit (TE-165744-0) to the Broughton Land Company for their Native Fish Habitat Conservation Plan (Reference Number: 1-9-08-F-0108; August 13, 2008).

Washington State Department of Natural Resources. Washington State Forest Practices Rules. Washington Administrative Code WAC 222-38-030 (2001).